REMARKS

I. Introduction

In response to the Office Action dated March 15, 2010, Applicants have amended claims 1-5 and 7-10 in order to further clarify the subject matter of the present disclosure. In addition, new claim 11 has been added. No new matter has been added.

Applicants respectfully submit that all pending claims are patentable over the cited prior art for the reasons set forth below.

III. The Rejection Of Claims 1-10 Under 35 U.S.C. § 102

Claims 1-10 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Jia et al. (US 2003/0224226). Applicants respectfully traverse this rejection for at least the following reasons.

Amended independent claim 1 recites, in part, a fuel cell system comprising a control means which controls the fuel gas supplying means, the oxidizing agent gas supplying means and the raw material gas supplying means such that during the starting of electricity generation of the fuel cell, the raw material gas supplying means purges at least the cathode side with the raw material gas before the fuel gas supplying means and the oxidizing agent gas supplying means supply the fuel gas and the oxidizing agent gas to the fuel cell, respectively.

In addition, amended independent claim 7 recites a method of starting a fuel cell system comprising a fuel cell which generates electric power from a fuel gas and an oxidizing agent gas, a fuel gas supplying means which supplies the fuel gas to an anode side of the fuel cell, and an oxidizing agent gas supplying means which supplies the oxidizing agent gas to a cathode side of the fuel cell, comprising: a purging step of purging, during the starting of electricity generation

of the fuel cell, at least the cathode side with a raw material gas to be used in the production of the fuel gas, before the fuel gas and the oxidizing agent gas are supplied to the fuel cell.

One feature of the present disclosure is that the fuel cell system or the method of starting the fuel cell system has a raw material gas supplying means which purges, during a purging step during the starting of electricity generation of the fuel cell, at least the cathode side with the raw material gas before a fuel gas supplying means and a oxidizing agent gas supplying means supply a fuel gas and an oxidizing agent gas to the fuel cell.

It is asserted by the Examiner that Jia teaches a fuel cell system, in which, during conditioning operations, a fuel is supplied to the cathode, and that conditioning cycles may run partway through a storage period or even at shut down (see paragraphs [0016], [0028]). Although the Office Action is silent with regard to the specific limitations of claims 1 and 7, presumably, the above assertion is made to suggest that Jia teaches that a raw material gas supplying means purges at least the cathode side with the raw material gas before the fuel gas supplying means and the oxidizing agent gas supplying means supply the fuel gas and the oxidizing agent gas to the fuel cell (claim 1), AND a purging step of purging, during the starting of electricity generation of the fuel cell, at least the cathode side with a raw material gas to be used in the production of the fuel gas, before the fuel gas and the oxidizing agent gas are supplied to the fuel cell (claim 7). Applicants respectfully disagree.

Jia merely teaches that exposing the cathode to a reductant such as hydrogen provides for normal performance without the need for a lengthy initial operating period. As is disclosed in paragraph [0013] of Jia, the conditioning method comprises directing a fluid comprising a reductant to the cathode without supplying oxidant to the cathode. In Jia, the preferred reductant is hydrogen, although other reductants such as hydrogen peroxide may be used instead. Thus, Jia

does not disclose a raw material gas supplying means, or supplying raw material gas to the cathode, since neither hydrogen nor hydrogen peroxide are raw material gases.

In contrast, the present disclosure teaches, in paragraph [0388], that if hydrogen gas is used to purge the interior of the fuel cell, local combustion may occur when electricity generation begins. As such, the present disclosure uses raw material gas to prevent such an occurrence. In view of the above, it is clear that Jia fails to disclose all of the limitations of claims 1 and 7 of the present disclosure.

Anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently in a prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986). Jia fails to teach or suggest a fuel cell system comprising a control means which controls the fuel gas supplying means, the oxidizing agent gas supplying means and the raw material gas supplying means such that during the starting of electricity generation of the fuel cell, the raw material gas supplying means purges at least the cathode side with the raw material gas before the fuel gas supplying means and the oxidizing agent gas supplying means supply the fuel gas and the oxidizing agent gas to the fuel cell, respectively, OR a method of starting a fuel cell system comprising a fuel cell which generates electric power from a fuel gas and an oxidizing agent gas, a fuel gas supplying means which supplies the fuel gas to an anode side of the fuel cell, and an oxidizing agent gas supplying means which supplies the oxidizing agent gas to a cathode side of the fuel cell, comprising: a purging step of purging, during the starting of electricity generation of the fuel cell, at least the cathode side with a raw material gas to be used in the production of the fuel gas before the fuel gas and the oxidizing agent gas are supplied to the fuel cell. Therefore, as it is apparent from the

foregoing that Jia fails to anticipate amended claims 1 and 7 or any dependent claims thereon, Applicants respectfully request that the § 102 rejection of claims 1 and 7 be withdrawn.

III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as independent claims 1 and 7 are patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

IV. Conclusion

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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